

## CONTINUATION OF SECOND NOTICE OF COMMENT PERIOD

LSA Document #07-352

## DEVELOPMENT OF AMENDMENTS TO RULES CONCERNING VOLATILE ORGANIC COMPOUNDS IN ORGANIC SOLVENT DEGREASERS

## PURPOSE OF NOTICE

A Second Notice of Comment Period for this rulemaking was published on January 13, 2010, in the Indiana Register (DIN: [20100113-IR-326070352SNA](#)). The draft rule amends [326 IAC 8-3](#) concerning organic solvent degreasing operations in Indiana. The Indiana Department of Environmental Management (IDEM) has made revisions to the draft language published in the Second Notice of Comment Period to provide clarity and address comments. Therefore, IDEM is publishing this Continuation of Second Notice of Comment Period and is soliciting public comments on the revised language. IDEM seeks public comment on the draft rule, including suggestions for specific language to be included in the rule, the fiscal impact of the rule, and the affected citations listed or any other provisions of Title 326 that may be affected by this rulemaking.

## HISTORY

First Notice of Comment Period: June 27, 2007, Indiana Register (DIN: [20070627-IR-326070352FNA](#)).

Continuation of First Notice of Comment Period: April 2, 2008, Indiana Register (DIN: [20080402-IR-326070352FCA](#)).

Second Notice of Comment Period: January 13, 2010, Indiana Register (DIN: [20100113-IR-326070352SNA](#)).

CITATIONS AFFECTED: [326 IAC 8-3](#).

AUTHORITY: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#).

## SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING

## Basic Purpose and Background

In the March 27, 2008, Federal Register (73 FR 16436), the United States Environmental Protection Agency (U.S. EPA) revised the primary and secondary 8-hour ozone standards to 0.075 parts per million (ppm). While the majority of Indiana meets the new standards, there are two areas that U.S. EPA proposes to designate as nonattainment, the northwest Indiana counties of Jasper, Lake, and Porter, and Lawrenceburg Township in Dearborn County. The Indiana Department of Environmental Management (IDEM) believes these areas should be designated attainment/unclassifiable because there are no monitored violations in those areas. IDEM is responding to U.S. EPA's proposed designations with comment and data to support this conclusion. However, IDEM believes it is still prudent for Indiana to consider implementing additional cost-effective measures to reduce emissions that contribute to the formation of ozone. The reasons for considering additional reduction measures include: the likelihood that Jasper, Lake, and Porter counties and Lawrenceburg Township in Dearborn County will be designated nonattainment, the narrow margin between Indiana's current air quality in the rest of the state and the new lower 8-hour ozone standard of 0.075 ppm, the possibility that the new ozone standard may be lowered even further in the future, and the concerns expressed by other states that emissions from Indiana are contributing to their inability to attain the standard (the Clean Air Act provides a legal mechanism for those states to require Indiana to reduce Indiana's potential contribution to nonattainment in other states).

A Second Notice of Comment Period was published in the Indiana Register on January 13, 2010 (DIN: [20100113-IR-326070352SNA](#)). In that notice, IDEM proposed to do the following:

- (1) Extend the material requirements for cold cleaner degreasers at [326 IAC 8-3-8](#) to all cold cleaner degreasers located in any county in the state.
- (2) Eliminate grandfathering of organic solvent degreasing operations in Indiana at [326 IAC 8-3-1](#).
- (3) Amend the applicability of the rule at [326 IAC 8-3-1](#), repeal sections [326 IAC 8-3-2](#), [326 IAC 8-3-3](#), and [326 IAC 8-3-4](#) to consolidate rule requirements into sections [326 IAC 8-3-5](#), [326 IAC 8-3-6](#), and [326 IAC 8-3-7](#) in order to streamline the structure of this rule, eliminate duplicative language and clarify the rule. These amendments do not broaden the scope of the existing rule language.
- (4) Exempt organic solvent degreasing operations that are not located in Clark, Floyd, Lake, or Porter County from the following:
  - (A) The operation and control requirements of [326 IAC 8-3-5](#), [326 IAC 8-3-6](#), and [326 IAC 8-3-7](#) if the degreaser:
    - (i) is subject to [326 IAC 20-6-1](#) (National Emission Standards for Hazardous Air Pollutants (NESHAP) from halogenated solvent cleaning); or
    - (ii) uses only organic solvents that contain less than one percent (1%) VOCs by weight.

(B) The material requirements at [326 IAC 8-3-8](#) if the cold cleaner degreaser:

- (i) is subject to [326 IAC 20-15-1](#) (NESHAP from aerospace manufacturing and rework facilities); or
- (ii) uses aqueous cleaning solvents as defined in the draft rule language ([326 IAC 8-3-0.5](#)).

After consideration of comments received and internal discussion about the draft rule, IDEM has revised the draft rule. Most significantly, IDEM does not now propose to eliminate the grandfathering provisions in the applicability section at [326 IAC 8-3-1](#).

Because volatile organic compounds (VOCs) contribute to the formation of ozone, it is important to control VOCs in order to comply with the 8-hour ozone standard. In an effort to assist neighboring states in the development of state implementation plans (SIPs) to comply with the federal requirements, the Lake Michigan Air Directors Consortium (LADCO) has been working with its member states to identify and recommend regional controls that would help states bring areas back into attainment for the new 8-hour ozone standard. The LADCO states include Illinois, Indiana, Michigan, Ohio, and Wisconsin. The LADCO states have discussed applying certain VOC control measures currently applicable in a limited number of counties to all counties in the region in order to provide a general benefit to all ozone nonattainment areas. LADCO has evaluated potential reductions from various regulatory options that could be adopted on a multistate basis in the region. Based on discussions with other LADCO states and information provided by LADCO, IDEM continues to propose amendment of [326 IAC 8-3](#) (Organic Solvent Degreasing Operations) by extending the material requirements in [326 IAC 8-3-8](#) to all counties in the state.

In combination with other efforts to reduce VOCs in Indiana and other states, the revisions to the organic solvent degreasers rule under consideration in Indiana will contribute to a regional control of VOCs that will assist many counties in reaching and maintaining attainment for the new 8-hour ozone standard while balancing the regulatory requirements across the state. Additionally, the proposed amendments to the material requirements for cold cleaner degreasers would update the rule to reflect that solvents meeting the proposed material requirements are already in extensive use throughout the state. Upon completion of the rulemaking, this rule will be submitted to the U.S. EPA for approval as a revision to the state implementation plan (SIP).

#### **[IC 13-14-9-4](#) Identification of Restrictions and Requirements Not Imposed under Federal Law**

The following element of the draft rule imposes either a restriction or a requirement on persons to whom the draft rule applies that is "not imposed under federal law" (NIFL element).

The following information is provided with each NIFL element:

- (1) The environmental circumstance or hazard dictating the imposition of the NIFL element in order to protect human health and the environment in Indiana and examples in which federal law is inadequate to provide this protection for Indiana.
- (2) The estimated fiscal impact and expected benefits of the NIFL element, based on the extent to which the NIFL element exceeds the requirements of federal law.
- (3) The availability for public inspection of all materials relied on by IDEM in the development of the NIFL element including, if applicable: health criteria, analytical methods, treatment technology, economic impact data, environmental assessment data, analyses of methods to effectively implement the proposed rule, and other background data.

NIFL Element A: Statewide application of material requirements for cold cleaner degreasers. The applicability provisions in [326 IAC 8-3-1](#) will require any person, unless exempted, who sells, offers for sale, uses or manufactures solvents for use in cold cleaner degreasers in Indiana to meet the material requirements of [326 IAC 8-3-8](#). Federal law does not impose degreaser requirements, but does impose economic consequences for nonattainment of the ozone standard.

- (1) The application of certain VOC control measures to all counties in Indiana will provide a general benefit to ozone nonattainment and maintenance areas. This rule is part of a larger group of VOC control rules that address regional ozone and particulate matter nonattainment.
- (2) The fiscal impact of compliance statewide for the material requirements is not easily quantified due to the large number of degreasing operations across the state. LADCO estimated a cost of \$1,400 per ton of VOC reduced based on the South Coast Air Quality Management District's cost analysis for their solvent cleaning rule (Rule 1122). However, that estimate assumed that compliant solvents were not readily available to regulated sources. The major solvent suppliers in Indiana already distribute solvents state-wide that meet the material requirements proposed in this rulemaking. Additionally, material substitution will generally result in lower compliance costs for individual sources than would be anticipated with the use of emission control devices. As discussed in this notice, Indiana will benefit from the reduction of VOC emissions.
- (3) LADCO evaluated potential reductions from various regulatory options that could be adopted on a multi-state basis in the region. The information used for the evaluation is presented in a white paper on degreasing at:

[http://www.ladco.org/Regional\\_Air\\_Quality.html](http://www.ladco.org/Regional_Air_Quality.html)

#### **Potential Fiscal Impact**

This rulemaking proposes to extend the applicability of the material requirements for cold cleaner degreasers at [326 IAC 8-3-8](#) to all counties in the state. A previous state rulemaking in 1998 that added the material

requirements for cold cleaner degreasers at [326 IAC 8-3-8](#) for four counties estimated a low fiscal impact. That rulemaking action would have been more costly to suppliers because the required solvents were not readily available in this state. However, since the 1998 rulemaking, compliant solvents for cold cleaner degreasers are currently being supplied statewide. IDEM surveyed the two largest solvent suppliers in Indiana and both already distribute compliant solvents to their customers statewide. No additional capital costs for equipment are anticipated.

#### **Public Participation and Workgroup Information**

No workgroup is planned for the rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Christine Pedersen, Rule and State Implementation Plan Development Section, Office of Air Quality at (317) 233-5684 or (800) 451-6021 (in Indiana).

#### **SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD**

IDEM requested public comment from January 13, 2010, through February 12, 2010, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following party by the comment period deadline:

Alcoa, Inc. Lafayette Operations (ALO)

SABIC Innovative Plastics (SABIC)

Following is a summary of the comments received and IDEM's responses thereto:

*Comment:* Commenter supports the formation of a work group of interested parties and stakeholders to assist in development of an appropriate rule for organic solvent degreasers. (ALO)

*Response:* IDEM has revised the draft language to provide clarity and address comments that may significantly change the impact the draft rule language would have on a source. If there is significant interest in the formation of a work group based on this revised language, IDEM will consider forming a work group.

*Comment:* IDEM stated in the Second Notice of rulemaking that no additional capital cost for equipment are anticipated. This is inaccurate. Alcoa Lafayette Operations believes that the costs of complying with this rule on a statewide basis will exceed \$500,000 and requests that IDEM conduct a thorough fiscal impact analysis prior to implementation of the rule. (ALO)

*Response:* IDEM has revised the draft language to provide clarity and address comments that may significantly change the impact the draft rule language would have on a source. IDEM requests that sources evaluate potential fiscal impacts and provide comments to assist IDEM in determining the likely costs associated with the revised draft rule.

*Comment:* The existing 8-hour standard for ozone is currently 0.85 ppm. Currently, all counties in Indiana are achieving this standard. U.S. EPA is currently reconsidering lowering the standard to 0.75 ppm. It is inappropriate to arbitrarily impose restrictive regulations in anticipation of future regulations without first conducting a scientific analysis of the anticipated benefits and costs of regulatory implementation. IDEM has not sufficiently demonstrated that requiring the existing solvent degreasers in existence prior to January 1, 1980 will significantly improve air quality. (ALO)

*Response:* Since these comments were originally submitted, U.S. EPA has lowered the ozone standard to 0.75 ppm. Though designations are not finalized yet, it is possible that Indiana will have one or more areas designated nonattainment for the new standard. Because ozone is a regional pollutant and can impact counties beyond the area in which it forms, it is reasonable to address it on a regional basis. For this reason, IDEM is proposing to expand the cold cleaner degreasing requirements statewide.

*Comment:* In numerous places in the rule, a numeric regulatory value is set forth in both metric and English units. The format used is one set of units is set forth, with the other set appearing in parentheses immediately following. For example, in proposed [326 IAC 8-3-0.5](#), a flash point temperature is described as "... greater than ninety-three (93) degrees Celsius (two hundred (200) degrees Fahrenheit)...." In all cases in the rule except one, however, the two values provided are not equivalent. One is left wondering which value is to be used in determining compliance, or whether either may be used. This obviously creates an ambiguity. To correct this issue, SABIC-IP has proposed to insert the word "approximately" immediately before the value set forth inside the parentheses. This way, the first-named value becomes the sole regulatory value, and the value in parentheses becomes an unenforceable approximation. (SABIC)

*Comment:* The proposed rule uses pairs of values, one in metric units and the other in English units. Even making the second values approximately equal to the first rather than hold them out as being equivalent, four of the "second" values in seven locations in the proposed rule are incorrect:

(a) In [326 IAC 8-3-0.5](#), 93 C equals 199.4 F, which rounds to 199 F.

(b) In [326 IAC 8-3-1\(a\)\(3\)\(C\)](#) and [326 IAC 8-3-7\(a\)\(2\)](#), 2 square meters equals approximately 21.53 square feet, which rounds to 21.5 square feet, not 21.6.

(c) In [326 IAC 8-3-6\(a\)\(3\)\(B\)\(iv\)](#) and [326 IAC 8-3-7\(a\)\(2\)\(E\)\(ii\)](#), 15 cubic meters per minute per square meter equals approximately 49.2 cubic feet per minute per square foot, which rounds to 49 cubic feet per minute per square foot, not 50.

(d) In [326 IAC 8-3-6\(b\)\(11\)\(B\)](#) and [326 IAC 8-3-7\(b\)\(6\)\(A\)](#), 20 cubic meters per minute per square meter

equals approximately 65.6 cubic feet per minute per square foot, which rounds to 66 cubic feet per minute per square foot, not 65.

(SABIC)

*Response:* The difference in the values between the metric and English units noted by SABIC is a result of rounding. Specifically, it appears that SABIC used the most precise conversion factors possible. However, the English units in the rule language represent the metric values adjusted for the appropriate amount of significant figures. When approximate numbers are multiplied or divided, the result is expressed as a number having the same number of significant digits as the expression in the problem having the least number of significant digits. In other words, multiplying a number having four significant digits by a number having two significant digits, the correct answer will be expressed to two significant digits.

SABIC observes that in the proposed [326 IAC 8-3-0.5](#), a temperature is described as "...greater than ninety-three (93) degrees Celsius (two hundred (200) degrees Fahrenheit)..." However, 93°C equals 199.4°F, which rounds to 199°F, not 200. SABIC's conversion would appear to be correct. However, using accepted scientific convention and significant figures, the conversion is completed as follows:  $T_F = (1.8 \times T_C) + 32$ . In this example,  $(1.8 \times 93) + 32 = 199.4^\circ\text{F}$ . The answer 199.4°F contains 4 significant figures, but the least number of significant figures in this problem is two (2). Therefore, the correct answer must contain only 2 significant figures. The conversion (199.4) must be rounded to two (2) significant digits. To maintain two (2) significant digits, the digits '4' in the tenths place and the digit '9' in the ones place must be dropped. Dropping the '9' requires increasing the value by one (1). This results in the Fahrenheit value becoming 200 which is the value that is correctly stated in the rule language.

IDEM declines to place the word "approximately" immediately before the value in the parentheses. The English values provided in the parentheses throughout the rule are the values that will be used for compliance determinations, based on IDEM's conversions using the appropriate number of significant figures. IDEM has checked and confirmed that all the conversions stated in the rule represent appropriate values. IDEM presents both numbers to avoid possible confusion or errors resulting from incorrect conversions. Additionally, these methods are consistent throughout IDEM's rules. Regulated sources have the option of using either the metric or English units when complying with the rule.

*Comment:* The proposed rule is inconsistent in how it refers to a cold cleaner degreaser. In some locations, the phrase is used. In other locations, the phrase cold "cleaning" degreaser is used. The regulatory term is "cold cleaner degreaser" (see [326 IAC 1-2-18.5](#)). That term should be used throughout the proposed rule. (SABIC)

*Response:* IDEM concurs "cleaning" should be "cleaner" in reference to "cold cleaner degreasers" and has made the changes in the draft rule.

*Comment:* The proposed record keeping requirement in [326 IAC 8-3-8\(d\)\(1\)](#) mandates that the records "be retained on-site" for a required period. However, given the prevalence of electronic record keeping and storage of such data on remote servers, SABIC suggests that this provision be revised to read as follows: "... shall be (1) retained on-site **or accessible electronically from the site** for the most recent...." (SABIC)

*Response:* IDEM concurs that the addition of this language will provide clarity to sources and has made the suggested change.

*Comment:* Several grammatical changes should be made:

(a) In [326 IAC 8-3-1\(a\)\(2\)](#), [326 IAC 8-3-1\(a\)\(4\)](#), [326 IAC 8-3-1\(a\)\(5\)](#) and [326 IAC 8-3-1\(b\)\(2\)](#), the word "state" should be changed to "State".

(b) In [326 IAC 8-3-1\(a\)\(3\)\(B\)](#) and [326 IAC 8-3-1\(a\)\(3\)\(C\)](#), [326 IAC 8-3-6\(a\)\(3\)](#), [326 IAC 8-3-6\(b\)\(11\)](#), [326 IAC 8-3-7\(a\)\(2\)](#) and [326 IAC 8-3-7\(b\)\(6\)](#), "air to solvent" should be changed to "air-to-solvent".

(c) In [326 IAC 8-3-8\(d\)\(1\)](#), "three (3) year" should be changed to "three (3)-year".

(d) In [326 IAC 8-3-8\(d\)\(2\)](#), "two (2) year" should be changed to "two (2)-year".

(SABIC)

*Response:* The format of the word "state" and the phrases "three (3) year" and "two (2) year" are specified by the Legislative Services Agency for use in regulatory language and cannot be changed. When drafting rule language, IDEM must comply with the requirements for administrative rules set forth in the *Administrative Rules Drafting Manual*, prepared by the Legislative Services Agency. These suggested changes do not meet LSA standards for rule language. For review of administrative rule standards please refer to the manual available on the website of the Indiana General Assembly at: <http://www.in.gov/legislative/pdf/IACDrftMan.PDF> IDEM concurs that "air to solvent" should be changed to "air-to-solvent", and has made the suggested change.

## REQUEST FOR PUBLIC COMMENTS

This notice requests the submission of comments on the draft rule language, including suggestions for specific revisions to language to be contained in the draft rule. Comments may be submitted in one of the following ways:

(1) By mail or common carrier to the following address:

LSA Document #07-352 VOC Degreasers

Christine Pedersen Mail Code 61-50



Rule and State Implementation Plan Development Section  
Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, IN 46204-2251

(2) By facsimile to (317) 233-5967. Please confirm the timely receipt of faxed comments by calling the Rule and State Implementation Plan Development Section at (317) 234-6530.

(3) By electronic mail to [cpederse@idem.in.gov](mailto:cpederse@idem.in.gov). To confirm timely delivery of submitted comments, please request a document receipt when sending the electronic mail. **PLEASE NOTE: Electronic mail comments will NOT be considered part of the official written comment period unless they are sent to the email address indicated in this notice.**

(4) Hand delivered to the receptionist on duty at the tenth floor reception desk, Office of Air Quality, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana.

Regardless of the delivery method used, in order to properly identify each comment with the rulemaking action it is intended to address, each comment document must clearly specify the LSA document number of the rulemaking.

#### COMMENT PERIOD DEADLINE

All comments must be postmarked, faxed, or time stamped no later than April 13, 2012. Hand-delivered comments must be delivered to the appropriate office by 4:45 p.m. on the above-listed deadline date.

Additional information regarding this action may be obtained from Christine Pedersen, Rule and State Implementation Plan Development Section, Office of Air Quality, (317) 233-5684 or (800) 451-6027 (in Indiana).

#### DRAFT RULE

SECTION 1. [326 IAC 8-3-1](#) IS AMENDED TO READ AS FOLLOWS:

#### [326 IAC 8-3-1](#) Applicability and exemptions

Authority: [IC 13-14-8](#); [IC 13-17](#)

Affected: [IC 13-17-3](#)

Sec. 1. (a) ~~Sections 2 through 4 of~~ **This rule applies to the following:**

**(1) Persons owning or operating degreasers using organic solvents that contain one (1) or more volatile organic compounds (VOCs).**

**(2) Any person who sells, offers for sale, uses, or manufactures organic solvent for use in cold cleaner degreasers.**

**(b) For purposes of this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:**

**(1) Circuit board assemblies.**

**(2) Printed wire assemblies.**

**(3) Printed circuit boards.**

**(4) Soldered joints.**

**(5) Ground wires.**

**(6) Bus bars.**

**(7) Any other associated electronic component manufacturing equipment.**

**(c) Unless exempted in subsection (d), this rule ~~apply to the following:~~ applies to persons owning or operating degreasers as follows:**

**(1) Existing facilities as of Sections 2(a), 3(a), and 4(a) of this rule apply to the following degreasers:**

**(A) Degreasers constructed on or before January 1, 1980, performing organic solvent degreasing operations that are located:**

**(i) in Clark, Elkhart, Floyd, Lake, Marion, Porter, and or St. Joseph counties; County; and which are located**

**(ii) at sources which that have potential emissions of ninety and seven-tenths (90.7) megagrams (one hundred (100) tons) or greater per year of VOC.**

**(2) ~~New facilities~~ (B) Degreasers constructed after January 1, 1980, performing organic solvent degreasing operations located anywhere in the state.**

~~(b)~~ **(2)** Sections 5 2 through 7 4 of this rule apply to the following **degreasers**:

~~(1)~~ The following facilities performing organic solvent degreasing operations

**(A) Cold cleaner degreasers without remote solvent reservoirs that:**

**(i)** are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, and or St. Joseph counties; existing as of July 1, 1990: **County; or**

**(ii)** were constructed after July 1, 1990, and located anywhere in the state.

~~(A) Cold cleaner degreasers without remote solvent reservoirs.~~

~~(B)~~ Open top vapor degreasers with an air-to-solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater **that:**

**(i)** are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or

**(ii)** were constructed after July 1, 1990, and located anywhere in the state.

~~(C)~~ Conveyorized degreasers with an air-to-solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater **that:**

**(i)** are located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph County; or

**(ii)** were constructed after July 1, 1990, and located anywhere in the state.

~~These facilities shall attain compliance with this rule no later than July 1, 1991.~~

~~(2) Any new facility, construction of which commences after July 1, 1990, of the types described in subdivision (1) located in any county.~~

~~(e)~~ **(3)** Section 8 of this rule applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaning **cleaner** degreasers in the following counties: **as follows:**

**(A) Before January 1, 2013, in the following counties:**

~~(1)~~ **(i)** Clark.

~~(2)~~ **(ii)** Floyd.

~~(3)~~ **(iii)** Lake.

~~(4)~~ **(iv)** Porter.

**(B) On and after January 1, 2013, anywhere in the state.**

**(d) The following degreasers and solvent material uses are exempted from this rule:**

**(1) Sections 2 through 4 of this rule do not apply to the following organic solvent degreasing operations:**

**(A)** Degreasers that are required to comply with and are operated in compliance with [326 IAC 20-6-1](#) that incorporates by reference 40 CFR 63, Subpart T\*, National Emissions Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning.

**(B)** Degreasers that use organic solvents that contain less than one percent (1%) of VOCs by weight and that are not located in Clark, Floyd, Lake, or Porter County.

**(C)** Degreasers existing prior to January 1, 1980 that are not located in Clark, Floyd, Lake, or Porter County.

**(2) Section 8 of this rule does not apply to the following:**

**(A)** Organic solvents used in degreasers to clean electronic components.

**(B)** Organic solvents used in degreasers that are required to comply with and are operated in compliance with the requirements of [326 IAC 20-15-1](#), which incorporates by reference 40 CFR 63, Subpart GG\*, National Emission Standards for Aerospace Manufacturing and Rework Facilities, and that are not located in Clark, Floyd, Lake, or Porter County.

**(C)** Cleaning solvents containing less than one percent (1%) VOCs by weight used in degreasers and that are not located in Clark, Floyd, Lake, or Porter County.

\*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Board; [326 IAC 8-3-1](#); filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; filed Apr 18, 1990, 4:55 p.m.: 13 IR 1679; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 2. [326 IAC 8-3-2](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-3-2](#) Cold cleaner degreaser control equipment and operating requirements

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#)

Affected: [IC 13-17-3](#)

Sec. 2. **(a)** The owner or operator of a cold cleaning facility ~~cleaner~~ **degreaser** shall **ensure the following control equipment and operating requirements are met:**

- (1) Equip the ~~cleaner~~ **degreaser** with a cover.
- (2) Equip the ~~cleaner~~ **degreaser** with a ~~facility~~ **device** for draining cleaned parts.
- (3) Close the degreaser cover whenever parts are not being handled in the ~~cleaner~~; **degreaser**.
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
- (5) Provide a permanent, conspicuous label ~~summarizing that lists~~ the operating requirements in **subdivisions (3), (4), (6), and (7).**
- (6) Store waste solvent only in covered **closed** containers. ~~and not dispose~~
- (7) Prohibit the disposal or transfer of waste solvent or transfer it to another party, in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) ~~can~~ to evaporate into the atmosphere.**

**(b)** The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent used is insoluble in, and heavier than, water.
  - (C) A refrigerated chiller.
  - (D) Carbon adsorption.
  - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
  - (A) must be a solid, fluid stream; and
  - (B) shall be applied at a pressure that does not cause excessive splashing.

*(Air Pollution Control Board; [326 IAC 8-3-2](#); filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)*

SECTION 3. [326 IAC 8-3-3](#) IS AMENDED TO READ AS FOLLOWS:

### **[326 IAC 8-3-3](#) Open top vapor degreaser operation**

**Authority:** [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#)

**Affected:** [IC 13-17-3](#)

Sec. 3. **(a)** The owner or operator of an open top vapor degreaser shall **ensure the following control equipment and operating requirements are met:**

- (1) Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
- (2) Keep the cover closed at all times except when processing workloads through the degreaser.
- (3) Minimize solvent carryout by:
  - (A) racking parts to allow complete drainage;
  - (B) moving parts in and out of the degreaser at less than **three and three-tenths (3.3)** meters per minute (eleven (11) feet per minute);
  - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (D) tipping out any pools of solvent on the cleaned parts before removal; and
  - (E) allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- ~~(4) not degrease~~ **Prohibit the entrance into the degreaser of porous or absorbent materials, such as cloth, leather, wood, or rope.**
- ~~(5) not occupy~~ **Prohibit occupation of more than half one-half (1/2) of the degreaser's open top area with the workload.**
- ~~(6) not load~~ **Prohibit the loading of the degreaser such that in a manner that causes the vapor level drops**

to drop more than fifty percent (50%) of the vapor depth when the workload is removed.

~~(7) never spray~~ **Prohibit solvent spraying** above the vapor level.

(8) Repair solvent leaks immediately, or shut down the degreaser **if leaks cannot be repaired immediately.**

(9) Store waste solvent only in covered **closed** containers. ~~and not dispose~~

**(10) Prohibit the disposal or transfer** of waste solvent ~~or transfer it to another party, such in a manner that could allow~~ greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

~~(10) not~~ **(11) Prohibit the use of** workplace fans near the degreaser opening.

~~(11) not allow~~ **(12) Prohibit** visually detectable water in the solvent exiting the water separator. ~~and~~

~~(12)~~ **(13) Provide the degreaser with** a permanent, conspicuous label ~~summarizing that lists~~ the operating requirements in subdivisions (2) through (12).

**(b) The owner or operator of an open top vapor degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:**

**(1) Equip the degreaser with the following switches:**

**(A) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.**

**(B) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).**

**(2) Equip the degreaser with one (1) of the following control devices:**

**(A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).**

**(B) A refrigerated chiller.**

**(C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.**

**(D) A carbon adsorption system with ventilation that, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air-to-vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.**

**(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.**

**(3) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.**

**(4) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.**

**(5) Ensure that the label required under subsection (a)(13) includes the additional operating requirements listed in subdivisions (3) and (4).**

*(Air Pollution Control Board; [326 IAC 8-3-3](#); filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)*

SECTION 4. [326 IAC 8-3-4](#) IS AMENDED TO READ AS FOLLOWS:

#### **[326 IAC 8-3-4](#) Conveyorized degreaser control equipment and operating requirements**

**Authority:** [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#)

**Affected:** [IC 13-17-3](#)

**Sec. 4. (a) The owner or operator of a conveyorized degreaser shall ensure the following control equipment and operating requirements have been met:**

**(1) Minimize carryout emissions by:**

**(A) racking parts for best optimal drainage; and**

**(B) maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).**

**(2) Store waste solvent only in covered closed containers. and not dispose**

**(3) Prohibit the disposal or transfer** of waste solvent ~~or transfer it to another party, in such a manner that~~



**could allow** greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

~~(3)~~ **(4) Repair solvent leaks immediately, or shut down the degreaser if leaks cannot be repaired immediately.**

~~(4) not~~ **(5) Prohibit the use of** workplace fans near the degreaser opening.

~~(5) not allow~~ **(6) Prohibit visually detectable** water in the solvent from exiting the water separator. and

~~(6) provide~~ **(7) Equip the degreaser with** a permanent, conspicuous label summarizing that lists the operating requirements in subdivisions (1) through (5).

**(b) The owner or operator of a conveyORIZED degreaser subject to this subsection shall ensure the following control equipment and operating requirements are met:**

**(1) Equip the degreaser's entrances and exits with downtime covers that are closed when the degreaser is not operating.**

**(2) Equip the degreaser with the following switches:**

**(A) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.**

**(B) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).**

**(C) A vapor level control thermostat that shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).**

**(3) Equip the degreaser with entrances and exits that silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than ten (10) centimeters (four (4) inches) or less than ten percent (10%) of the width of the opening.**

**(4) Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment that prevents cleaned articles from carrying out solvent liquid or vapor.**

**(5) Equip the degreaser with one (1) of the following control devices:**

**(A) A refrigerated chiller.**

**(B) A carbon adsorption system with ventilation that, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air-to-solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.**

**(C) An alternative system of demonstrated equivalent or better control as those outlined in clause (A) or (B) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.**

**(6) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.**

**(7) Cover entrances and exits at all times except when processing workloads through the degreaser.**

**(8) Ensure that the label required under subsection (a)(6) includes the additional operating requirements listed in subdivisions (6) and (7).**

*(Air Pollution Control Board; [326 IAC 8-3-4](#); filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)*

SECTION 5. [326 IAC 8-3-8](#) IS AMENDED TO READ AS FOLLOWS:

### **[326 IAC 8-3-8](#) Material requirements for cold cleaner degreasers**

**Authority:** [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#)

**Affected:** [IC 13-17-3](#)

Sec. 8. (a) **Material requirements specified in this section applies to the users, providers, and manufacturers of solvents for use in cold cleaning cleaner degreasers apply as follows:**

**(1) Before January 1, 2013,** in Clark, Floyd, Lake, and Porter counties. ~~except for solvents intended to be used to clean electronic components.~~

**(2) On and after January 1, 2013, anywhere in the state.**

(b) As used in this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:

- (1) ~~Circuit board assemblies.~~
- (2) ~~Printed wire assemblies.~~
- (3) ~~Printed circuit boards.~~
- (4) ~~Soldered joints.~~
- (5) ~~Ground wires.~~
- (6) ~~Bus bars.~~
- (7) Any other associated electronic component manufacturing equipment.

(c) ~~(b)~~ Material requirements are phased in as follows:

(1) On and after November 1, 1999, no person shall do the following:

(A) Cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(B) Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) On and after May 1, 2001, no person shall do the following:

(A) **(1) No person shall** cause or allow the sale of **organic** solvents for use in cold cleaning **cleaner** degreasing operations with a vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.

(B) **(2) No person shall** operate a cold cleaning **cleaner** degreaser with a solvent **an organic** vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(d) On and after November 1, 1999, the following ~~(c)~~ Record keeping requirements shall be followed: **are as follows:**

(1) All persons subject to the requirements of subsection ~~(c)(1)(A) and (c)(2)(A)~~ **(b)(1)** shall maintain all of the following records for each sale:

- (A) The name and address of the solvent purchaser.
- (B) The date of sale.
- (C) The type of solvent **sold**.
- (D) The volume of each unit of solvent sold.
- (E) The total volume of the solvent **sold**.
- (F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) All persons subject to the requirements of subsection ~~(c)(1)(B) and (c)(2)(B)~~ **(b)(2)** shall maintain each of the following records for each purchase:

- (A) The name and address of the solvent supplier.
- (B) The date of purchase.
- (C) The type of solvent **purchased**.
- (D) The volume of each unit of solvent **purchased**.
- (E) The total volume of the solvent **purchased**.
- (F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

~~(e)~~ **(d)** All records required by subsection ~~(d)~~ **(c)** shall be:

**(1)** retained on-site **or accessible electronically from the site** for the most recent three (3) year period; and shall be

**(2)** reasonably accessible for an additional two (2) year period.

(Air Pollution Control Board; [326 IAC 8-3-8](#); filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 6. THE FOLLOWING ARE REPEALED: [326 IAC 8-3-5](#); [326 IAC 8-3-6](#); [326 IAC 8-3-7](#).

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